nomic evaluation. Sensitivity analyses were conducted to explore the uncertainties surrounding the assumptions. **RESULTS:** Abiraterone plus prednisolone indicated higher QALYs than prednisolone alone, though it was more expensive. In the base-case analysis, ICER for abiraterone plus prednisolone exceeded JPY 10 million (EUR 80,000) per QALY gained. The one-way sensitivity analysis for discount rate (0 to 4%) showed no affects on the results. **CONCLUSIONS:** The present study concludes that the ICER may be more than JPY 10 million. Further deliberate discussion on cost-effectiveness of abiraterone in Japan is needed to consider the Japanese price and clinical outcomes.

PCN134

ECONOMIC EVALUATION OF HPV VACCINATION PROGRAM IN SOUTH KOREA

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OBJECTIVES: To assess the cost-effectiveness of a national HPV vaccination program that vaccinates 12 year-old girls with cervical cancer screening and the only current cervical cancer screening. **METHODS:** We analyzed the effect of HPV infection reduction by HPV vaccination on reduction of CIN and cervical cancer and finally conducted cost-utility analysis applying QALYs to which takes into account life span expansion and the quality of life. With the societal perspective, patient time costs, caregiver costs, and transportation costs were all considered as well as medical costs. Markov model was used with one year cycle and life time analysis period. Markov states in this model were classified well, HPV infection, CIN 1, CIN 2/3, cervical cancer (initial cancer), follow-up cervical cancer, recurrent/persistent cancer, follow-up recurrent/persistent cancer and death. The HPV infection was limited to infections caused by HPV specific types 16 and 18. **RESULTS:** When HPV vaccination program is introduced to 12-year old cohort, it was indicated that cervical cancer patients with HPV vaccination program would be 2,042 patients and cervical cancer patients with present screening program 3,709. It results that cervical cancer patients would be decreased to 1,667 by HPV vaccination. From this, it was estimated that all the cohorts would get an additional life expectancy of 1,648 LYG and quality adjusted life years of 1,849 QALYs. According to cost-utility analysis result, additional 1849 QALYs cost KRW 59.8 billion when HPV vaccination program implement, and the incremental cost-utility ratio was estimated to be KRW 32 million per a QALY. Considering the threshold of Korean cost-effectiveness, the vaccination program is decided not to be cost-effective. **CONCLUSIONS:** Though the HPV vaccination program for 12-year old girls was not cost-effective at the current condition of Korea, it is advisable to consider that cost-effectiveness varies sensitively.

PCN135

COST UTILITY ANALYSIS OF EVEROLIMUS IN THE TREATMENT OF METASTATIC RENAL CELL CANCER IN THE NETHERLANDS

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OBJECTIVES: Metastatic renal cell cancer (mRCC) is becoming an important part of Dutch health care expenditure due to expensive pharmaceutical options for disease control and lack of adequate prevention methods. New targeted therapeutics, such as sunitinib, sorafenib and everolimus, have recently emerged with relevant benefits on progression-free survival (PFS) for mRCC patients. This study aims to assess the cost-effectiveness of the most recent of these introductions, i.e. everolimus, in comparison to best supportive care in second line treatment of mRCC patients in The Netherlands. **METHODS:** A Markov model was designed in line with Dutch treatment protocols. Transitions between health states were modeled by time-dependent probabilities extracted from published Kaplan-Meier curves for PFS and overall survival (OS). The cohorts were followed over 18 cycles, each cycle lasting 8 weeks. Annual discount rates of 1.5% for health and 4% for costs were applied and a health-care perspective was taken. One-way and probabilistic sensitivity analyses (PSA) were performed to test the robustness and uncertainty around the base-case estimate. **RESULTS:** The incremental cost-effectiveness ratio (ICER) for everolimus was esimated at €92,258/QALY. Sensitivity analysis identified the hazard multiplier, an estimate of OS gain, as the main driver of everolimus' cost-effectiveness. Through PSA a wide 95% confidence interval around the base-case ICER estimate was revealed (€49,677 - €453,941/QALY). Additionally, at the threshold of three times GDP per capita (€95,700 in The Netherlands) everolimus had a 54% probability of being cost-effective. **CONCLUSIONS:** The base-case ICER was just below the upper cost-effectiveness limit recommended by WHO, indicating that everolimus might be a cost-effective option in the Dutch setting. However, reasonable uncertainty of the main finding resulted from everolimus' unpredictable gain in OS. Efforts should be undertaken to perform an integral assessment of the economic attractiveness of all current and new therapeutics in mRCC.

PCN136

COST-UTILITY ANALYSIS (CUA) OF DIFFERENT STRATEGIES TO TREAT NEWLY DIAGNOSED LOCALLY CONFINED LOW-RISK PROSTATE CANCER (LCLRPC) IN GERMANY: RESULTS OF THE HAROW STUDY

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OBJECTIVES: The optimal treatment choice for preserving quality of life (QoL) of the about 64,000 men diagnosed with prostate cancer each year in Germany still remains unclear. The objectives therefore were to estimate cost utility under day-to-day conditions of caring for men in Germany with newly diagnosed LCLRPC using hormonal therapy (HT), active surveillance (AS), radiotherapy (RT), operation (OP), or watchful waiting (WW) – HAROW. **METHODS:** The long-term observational multi-centre HAROW study combined data collection from urologists (clinical data; utilized outpatient medical services, OMS) and from patients (employment status, QoL by EQ-5D, numerous health resource use items). Resource use was valued by year 2010 official prices in €. Direct costs (DC) were given by hospital treatment, OMS and drugs, inpatient rehabilitation, patients' co-payments. Indirect costs (IC: sick leave, premature retirement, premature mortality) were estimated by 2010 gross domestic product/capita/day. Costs and quality-adjusted life-years (QALYs) were discounted by 3% per annum. Strategies with significantly different QALYs/patient-year (PY) were compared by CUA, remaining strategies by cost-minimization analysis. **RESULTS:** From July 2008 to March 2013, 3063 LCLRPC patients (T1a–T2c, N0, M0; 67.3±7.5 years) were included from 257 urologists: AS n=452, RT n=378, HT n=210, HT+RT n=80, combination therapy (CT) n=137, OP n=1647, other therapy (OT) n=18, WW n=141. Observation period: average 1.9 years, maximum 4.6 years. From the societal perspective (DC+IC), AS and RT each dominated HT, i.e. there were savings/PY (€257 and €208) and QALYs gained/PY (0.0811 and 0.0587) with AS and RT, respectively, versus HT. When comparing OP to HT, there were additional cost (DC+IC) of €5134/PY and 0.0784 QALYs gained/PY for OP versus HT leading to €65,525 per QALY gained. **CONCLUSIONS:** The HAROW study provides meaningful results on cost utility of AS, OP, RT, and HT as LCLRPC treatment strategies under day-to-day conditions of care in Germany to support decision making.

PCN137

A COST-UTILITY ANALYSIS OF EVEROLIMUS PLUS EXEMESTANE FOR THE TREATMENT OF ER+ HER2- METASTATIC BREAST CANCER IN THE UNITED KINGDOM

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OBJECTIVES: This study evaluated the cost-effectiveness of everolimus + exemestane (EVE+EXE) versus placebo + exemestane (PBO+EXE) in patients with ER+ HER2- metastatic breast cancer in the UK. Whilst the effectiveness of treatment has been demonstrated previously, this is the first analysis to assess the cost of the intervention alongside those benefits. **METHODS:** A Markov model was developed to compare treatment with EVE+EXE versus PBO+EXE in patients with ER+ HER2- metastatic breast cancer over a lifetime time horizon (UK health care perspective). Follow-up data on progression-free survival and overall survival were taken from the BOLERO II trial. Weibull functions were used to extrapolate trial data beyond the follow-up period. Utilities from published sources were combined with trial data to calculate quality-adjusted life years (QALYs) associated with each treatment. Drug costs (list prices) and background health state costs (i.e. non-intervention costs) were applied to calculate incremental costs offset. **RESULTS:** Over a ten year time horizon, EVE+EXE led to a life expectancy of 3.27 years, compared to 2.41 for PBO+EXE. EVE+EXE resulted in 1.91 QALYs, compared to 1.31 for PBO+EXE. Therefore, the incremental gains in life years and QALYs were 0.85 and 0.60 respectively. Drug costs were £22,074 and £628 for the two arms respectively, whilst non-drug costs were £22,332 and £21,108 respectively. Therefore, the EVE+EXE arm had an incremental cost of £22,670. The incremental cost per QALY was, therefore, £37,719 over a ten-year time horizon. Probabilistic sensitivity analysis demonstrated that, at a threshold of £30,000 per QALY gained, EVE+EXE had a 27.3% likelihood of being cost-effective. At a threshold of £55,000 per QALY gained, the likelihood of cost-effectiveness was 77.4%. **CONCLUSIONS:** EVE+EXE was associated with increased health care costs, but was also estimated to lead to health gains in terms of both LYs and QALYs.

PCN138

COST-EFFECTIVENESS OF GEMCITABINE PLUS CISPLATIN VERSUS GEMCITABINE ALONE FOR TREATMENT OF ADVANCED BILIARY TRACT CANCER IN JAPAN

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OBJECTIVES: Gemcitabine plus cisplatin is a common use for chemotherapy patients with advanced biliary tract cancer in Japan. This study aims to assess the cost-effectiveness of this combination therapy compared to monotherapy for biliary tract cancer in Japan. **METHODS:** A Markov model of three states and monthly transmissions was constructed based on a phase II trial. Transition probabilities between states were derived from the trial conducted by Valle, J. et al (2010). and converted to appropriate parameters for input into the model. The associated cost components, obtained from literature published in Japan, were inpatient, outpatient, and medication for biliary tract cancer as well as those for palliative care. We estimated cost-effectiveness per quality-adjusted life year (QALY) at a time horizon of thirty two months. An annual discount for cost and outcome was not considered. **RESULTS:** The model demonstrate no statistical significance in the hazard ratio of 0.625, as compared to an actual ratio of 0.63 (95% confidence interval: 0.51–0.77) retrieved from the clinical trial. The base case outcomes indicated that combination therapy would be more cost-effective than monotherapy when the incremental cost-effectiveness ratio (ICER) was approximately 720,000 YEN per QALY gained, retrospectively. A tornado diagram depicting the deterministic sensitivity analysis of the ICER revealed that the death rate resulting from the combination therapy influenced the base case, but robustness of the base case was identified. A probabilistic analysis resulting from 5,000 Monte Carlo simulations demonstrated efficacy at willingness to pay (WTP) thresholds of 5,000,000 YEN per QALY gained in approximately 95% of the population. **CONCLUSIONS:** In Japan, combination therapy is a cost-effective treatment option for advanced biliary tract cancer.

PCN139

HEAD TO HEAD ECONOMIC EVALUATION OF TWO GENOMIC PROFILES OF RECURRENCE RISK FOR BREAST CANCER, MAMMAPRINT VERSUS ONCOTYPE DX, IN SPAIN

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OBJECTIVES: Cost effectiveness analysis of MammaPrint in the diagnosis of early breast cancer from the Spanish NHS perspective. **METHODS:** Markov model